

JPRS 81998

14 October 1982

Worldwide Report

TELECOMMUNICATIONS POLICY,
RESEARCH AND DEVELOPMENT

No. 243



FOREIGN BROADCAST INFORMATION SERVICE

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GOVERNMENT PREPARED TO ACT ON TELECOM CONNECTIONS BACKLOG

Brisbane THE COURIER-MAIL in English 23 Aug 82 p 9

[Text] Canberra--The Federal Government would make a concerted effort to cut the backlog of new telephone connections, the Communications Minister, Mr Brown, said yesterday.

There would be a parallel drive to increase trunkline capacity and business data-telex facilities.

Mr Brown said "flying squads" were being developed to overcome connection backlogs in areas where there had been serious delays.

These included coastal areas of Queensland, the Hunter Valley, the Blue Mountains and the northern districts of New South Wales where trained staff from interstate were being directed.

The government had told Telecom it must connect more than 2000 services each working day to reduce the waiting list.

"The government is determined that this shackle on business and community life in Australia will be removed," Mr Brown said.

The backlog of more than 80,000 had not been reduced as quickly as the government hoped, although it was down 13,000 on the previous financial year.

Contracts worth \$356 million had been let for improvements to the telephone network and more contracts would be placed this year to bring the expected total to \$700 million.

Mr Brown said it would be a "substantial boost" to Australia's manufacturing industry.

As part of its "overall drive" to improve the quality of telephone services, Telecom would replace about 2000 sub-standard lines in country districts.

Another 12,000 manual services would be converted to automatic.

"Emphasis is being placed on meeting the demands of new customers but there is a parallel drive to increase trunkline capacity for existing services," Mr Brown said.

"Special efforts will be made to provide data, telex and miscellaneous facilities for business customers."

Senator Colston (ALP, Qld) said yesterday increased charges, including a \$10 phone residential rise and a 1c increase on local calls, should be used to give subscribers greater priority.

Senator Colston said Telecom should spend some of its higher revenue on installing equipment to allow STD calls to be separately metered.

FEDERAL BUDGET LACKS AID TO TECHNOLOGY, COMPUTER SECTORS

Canberra THE AUSTRALIAN in English 24 Aug 82 p 25

[Article by Harry Douglas]

[Text] THE day after the 1982 Budget, newspapers were variously describing it as "giveaway", "votebuying" and "handout" Budget.

The Budget was most definitely an appeal by the Liberal Party for continued support from "middle Australia".

As a Budget for sectional interests, some did well and others did poorly.

The computer sector certainly didn't do well.

It cost me \$49 to purchase a full set of Budget papers from the Government bookshop.

I eagerly scoured through the 12 volumes of detail, but unfortunately found very little of specific interest to high technology industry.

But it was good to see Aussat receive an \$18 million injection.

Aussat will own and operate the proposed domestic satellite communications system. The money was needed if it is to be operating by 1985 as planned.

While Australia will be the last cab off the satellite rank in terms of developed nations, we will have an advantage if we are smart enough to learn by the mistakes of others.

Also in the Budget was a funding boost for youth job training schemes.

I hope this will aid the Commonwealth/State/Australian Computer Society training scheme.

There was nothing much else new to comment on in the context of this column, but that is not particularly surprising.

High technology does not win votes and is seldom mentioned by political candidates in their electioneering speeches.

Australia is not one of the enlightened countries which consciously nurture their high technology industries.

But that is partly because high technology industry is not able to effectively articulate the reasons for its crucial importance to our national future.

Who is prepared to do something about this?

How about, as a starting point, an industry association which represents to Government and to the community the whole range of high technology industries — not just computers?

When dealing with Government, there is strength in numbers, ie an association should represent all States and all sectors of high technology.

An association representing only computers is not what I mean.

The "shopping list" for the industry association could include:

(a) Provision of venture capital at favorable rates;

(b) Beefed up Industrial Research and Development Grants;

(c) A conscious Buy Australia Program; and,

(d) Special tax concessions.

Nothing can be achieved overnight, but if Australia is to follow the Irish, French and Japanese example, there has to be a starting point.



Congratulations are due to everybody associated with Information Technology Week.

As an exercise in raising public awareness on information technology it was a success, although fairly nebulous to measure.

Many of the planned events of the Week were innovative and imaginative, which they had to be to catch the attention of the Australian public.

An example which I know something about was Operation "IT", a Queensland event.

My company was involved through our Queensland manager, John Puttick.

Operation "IT" involved the transmission of a message to 35 countries.

The message promoted the next Scout Jamboree in Queensland and it was transmitted via telex, personal computer, telephone, facsimile, satellite and cable.

The message was initiated in Cairns by the Minister for Science and Technology, David Thompson, and went virtually simultaneously to all the locations using the

different methods of modern communications.

I am sure that Information Technology Week and events like Operation "IT" did something to bridge the vast gap of public comprehension of technology.

As such, the "IT Week" (to coin a new phrase) should be strongly supported by the computer industry in future years.

☐ ☐ ☐

Two major reports being tabled in Federal Parliament will have a major effect on our industry.

An interim report on Pay TV was tabled on August 17, and the Davidson Report on Telecommunications is expected in October.

Decision on the first report could be delayed until after the second report due to the overlap (bad organisation?).

For example, Telecom is the logical body to own and maintain cable reticulation systems — at least in the major cities.

Pay TV will be available in three ways:

(a) Initially, radiated scrambled signals similar to normal television (RSTV — Radiated Subscription TV)

(b) Cable TV, which should follow hard on the heels of the radiated service — (CTV). CTV has the advantage over RSTV of two-way signals and many more channels, but at a much higher cost (cable has to be laid past and into each householder).

(c) In due course direct broadcast by satellite (DBS) will be the main source of program product which will be able to feed into both the cable and radiated networks.

Early starters are likely to be the Gold Coast and the Outback — the latter via the existing satellite service.

Sections of the industry are already being organised with the formation of a cable and STV association under the guidance of Dick Rowe, a former senior private secretary to Tony Staley.

The new Minister for Communications, Neil Brown, will have his hands full prior to Christmas.

Let's hope that electioneering doesn't delay the decision making, which will be to the benefit of the 98 per cent of Australian households who use TV on a regular basis.

I shall have more to say on pay TV when the two reports come to hand.

CSO: 5500/7568

BROADCAST TRIBUNAL ISSUES CABLE TV RECOMMENDATIONS

Features of Report

Canberra THE AUSTRALIAN in English 18 Aug 82 p 3

[Article by Ted Knez: "Tribunal Green Light for Cable TV"]

[Text] THE Australian Broadcasting Tribunal has recommended the introduction of cable and subscription television in a move which would widen dramatically the variety of programs and services available.

The recommendation, contained in an interim report, were tabled in Federal Parliament yesterday and senior officials claimed this prompt public release was a measure of the Government's support for the systems.

The tribunal insists on a mixture of public and private control of cable television, giving Telecom and the business sector "equal" opportunities in establishing and operating the networks.

But it clearly expects private industry to provide radiated subscription television services with the recommendation that the ABC and the special broadcasting service be excluded.

Cable television is a versatile system which provides services ranging from direct satellite broadcasting to electronic security by way of gadgetry attached to private sets.

Radiated subscription television is similar to conventional television except that transmissions are scrambled and only subscribers with decoders can receive them.

Flexibility

Federal Parliament was told yesterday the broadcasting

tribunal had recommended a flexible system of ownership and use of cable television, enabling operators to lease channels on a commercial basis.

The Minister for Communications, Mr Brown, who tabled the interim report, said the tribunal recommended:

THE introduction of cable television and radiated subscription television as soon as practicable.

LIMITATIONS on the ownership and control of cable and radiated subscription television licences, based on factors such as prescribed interest levels, total media interests and the viability of existing broadcasting services.

RESTRICTIONS on foreign ownership of commercial radio and television should generally apply with some qualifications in respect of cable television, particularly relating to companies naturalised for the purposes of the Government's foreign investment policy.

THE private sector and public authorities (including Telecom) should have equal opportunities to own and maintain the cable reticulation system.

PUBLIC authorities should not hold cable television licences but may lease channels on the system.

CABLE television licensees should provide separate channels for community, education and children's programs.

CABLE television systems should be permitted to carry enhanced services such as security services or two-way tele-shopping services.

ADVERTISING should be permitted on basic cable television services, but disallowed in radiated subscription television services.

Timing

Mr Brown said: "These recommendations have significant implications for the broadcasting, entertainment and information industries."

Parliamentary debate and the Government's final decision are expected to be delayed until the full report, consisting of five volumes, is tabled, probably late next month.

The Opposition spokesman on science and technology, Mr Barry Jones, claimed in Parliament yesterday the timing of the release of the interim report was "significant".

He said: "It is clear that the Government intends to adopt the report if it holds office long enough to do so."

"The announcement today is intended to guarantee financial support for the Government in what will probably be an early election campaign, depending on the public reaction to tonight's Budget."

The tribunal which conducted an inquiry into the two systems, recommends establishing subscription television first.

It claims this medium could play an important role, in the short term, by preparing the community for the introduction of consumer-financed television.

Opposition Reservations

— LIKE THE SYDNEY MORNING HERALD in English 18 Aug 82 p 1

[Excerpts]

The tribunal says that cable and radiated subscription television services should be run by private enterprise — excluding the ABC and the Special Broadcasting Service.

Public authorities should be excluded from having cable television licenses but permitted to lease individual channels from a private operator, the tribunal has recommended.

The tribunal has recommended that Australia go ahead with the new television systems despite a number of commissions by its public inquiry which argued that the proposed multi-channel system could be obsolete in five years with the development of optical fibre technology.

Under a cable television system, consumers would be asked to have to pay an installation fee and a monthly subscription for the program of their choice.

Estimates of the cost to consumers vary. It has been suggested that subscribers in Sydney would pay about \$25 a month after an installation fee of about \$35.

A study in 1978 by a national

television network suggested there could be 250,000 initial subscribers.

Radiated subscription television is broadcast in a scrambled form and subscribers lease decoders from the station.

The Federal Opposition was strongly critical of the tribunal's recommendations.

The Opposition spokesman on science and technology, Mr Jones, told Parliament cable television was "an extravagance in times of economic recession."

Mr Jones said Telecom should be allowed to provide the technical framework for any cable system to be introduced in the future.

Estimates of costs put before the tribunal for wiring the main cities had been \$12 billion if Telecom was allowed to use its existing resources, compared with \$1 billion if Telecom was excluded, Mr Jones said.

The Opposition is concerned also that the rapid introduction of cable and subscription television could disrupt the ordered development of the overall Australian broadcasting system.

GOVERNMENT TO PROCEED WITH AVIATION PHASE OF SATELLITE

Canberra The AUSTRALIAN in English 21 Aug 87 p 3

(APAC)

THE Federal Government has decided to proceed with the aviation segment of the Australian national communications satellite system.

The decision calls for the expenditure of \$30.9 million over the next six years.

The Minister for Aviation, Mr Fife, said yesterday the Department of Aviation proposed to use the satellite system from the start of its commercial operation in 1988.

He said satellites would enable vast improvements in the quality of coverage of communications between aircraft and air traffic control and flight services over Australia, particularly in remote areas.

About 100 satellites would be required for the system.

Mr Fife said the system

would provide a comprehensive network of point-to-point satellite links between air traffic service centres — and from those centres to a number of remote air-ground communication outlets throughout Australia — to carry vital voice and data traffic for aeronautical safety purposes.

The network will employ duplicate facilities which will operate continuously and independently through two satellites, he said.

The system will enable air traffic service centres to receive the better of two independent signals from satellites in different stationary orbits.

This will ensure continuous communications safety and integrity in the event of atmospheric or weather interference or where one satellite or its ground equipment fails.

(40) 80074563

AUSTRALIA HAS EDGE IN DEVELOPMENT OF SILICON CHIP

Canberra THE AUSTRALIAN in English 25 Aug 82 p 26

[Article by Jane Ford]

[Text]

CSIRO scientists have developed Australia's first multi-project silicon chip, substantially cutting the cost of chip fabrication and opening the way for a whole range of new high technology industries in Australia.

They have also pioneered a new method of chip design, which for the first time will allow Australian industry to design its own chips at a fraction of the normal cost.

Australia is the first country outside the United States to make this capability widely available to industry and research institutions. It means Australian industry can move into developing innovative high technology products with substantial export markets.

The development puts Australia well ahead of Japan and Britain in this area. Both are still trying to develop this custom-designed chip capability.

Previously, chip design and fabrication had been prohibitively expensive, with companies paying large sums for outside design work and up to \$40,000 for prototype quantities to be fabricated overseas.

Now an individual Australian company can design its own chip, using a method developed in the US and pioneered in Australia by the leader of CSIRO's newly-established VLSI (Very Large Scale Integrated Circuit) laboratory in Adelaide, Dr Craig Mudge.

It involves computer design of the chip and can be learnt within a few months by computer scientists and engineers.

The process is the brainchild of Professor Carver Mead, of the Californian Institute of Technology, and Dr Lynn Conway, of Xerox, who taught at the Massachusetts Institute of Technology.

Dr Mudge worked with both men in the US and on his return to Australia to head the VLSI laboratory, began courses in the technique at Australian universities and institutes of technology.

At the same time his laboratory began work on the multi-project chip, which allows up to 46 individual designs to be fabricated on one chip.

Savings

This cuts costs enormously. For instance, a normal single custom-design chip previously cost \$40,000 to fabricate — now the multi-project chip, with over 40 designs, can be made for about \$50,000. This allows small industries to develop prototype chips at a little over \$1000 each.

The first multi-project chip developed by CSIRO contains individual designs for a processor for a bionic ear, an insulin defuser for diabetics, a new bore-hole logger for on-site assessment of mineral deposits, and a device to improve the performance of the Parkes radio-telescope.

Each of these chips was designed in Australia by industry, universities, the CSIRO and the Institute of Technology, after taking Dr Mudge's design course.

Some have even been produced by students with only six months' design experience.

AUSTRALIA

BRIEFS

SATELLITE DEVELOPMENT FUNDING--The government will make \$18 million available for satellite development by way of increased equity in AUSSAT Pty Ltd, the company formed to own and operate the domestic satellite communications system to be introduced in 1985. The Commonwealth is now the sole shareholder in the company, with 75 million one dollar shares partly paid to eight cents a share giving it a \$6 million stake in Australia's first domestic satellite. It is planned that the public will take up equity in Aussat Pty Ltd as soon as practicable. In June this year, a contract was signed for the supply of three satellites and related ground equipment. The estimated capital cost to 1985-1986 of establishing the system is \$224 million. AUSSAT is now funded by a mix of equity capital and loans funds. Bridging loans from onshore and offshore sources account for some \$350 million. Users will include the Australian Broadcasting Commission, aviation and maritime transport industries, Telecom, commercial broadcasters, business houses and community groups. The company is being run as a commercial taxpaying enterprise. Financial viability assessments claim the company should begin returning reasonable dividends to shareholder during the life of the first generation satellites, or at least seven years. [Text] [Brisbane THE COURIER-MAIL in English 18 Aug 82 p 14]

QUEENSLAND TELECOM DEVELOPMENT--Toowoomba--Telecom will invest more than \$320 million on new works in Queensland in 1982-83, the federal Communications Minister, Mr Brown, said yesterday. "The money will be spent on building and equipping telephone exchanges, laying cables and providing handsets in subscribers' premises," he said. Mr Brown was speaking at the official opening of the \$1 million Telecom complex at Toowoomba. Mr Brown said the demand for telephone services in Queensland had doubled in the past five years. "This has led to delays in telephone installation but Telecom's heavy investment program in 1982-83 should overcome these backlogs and reduce the time taken to connect new services," he said. Telecom would soon begin installing the first version of a radical radio concentrator system designed to provide economic telephone services in the outback. It was the brainchild of Telecom's research Laboratories and the first section would link Charleville and Cunnamulla to allow the system to be tested under operational conditions. "The system could be used to provide telephone services in other countries facing similar distance problems," Mr Brown said. [Text] [Brisbane THE COURIER-MAIL in English 21 Aug 82 p 13]

DISC STORAGE RECORD--Hamersley Iron in Perth has installed an IBM 3380 disc storage unit on its IBM 3033 computer, one of the first disc installations of its kind in Australia. The disc unit is attached to a special high speed data streaming channel through an IBM 3880 storage control unit. The total capacity of one 3380 storage unit is about 2500 million bytes, almost four times the capacity of any previous IBM disc storage unit. The additional 5040 million bytes of storage installed at Hamersley Iron will be used for database storage for applications such as the supply and inventory system and the maintenance management system which the company uses to monitor its operations. [Text]
[Canberra THE AUSTRALIAN in English 24 Aug 82 p 15]

CSO: 5500/7569

STEPS TO IMPROVE DACCA TELEPHONE SERVICE PLANNED

Dacca THE BANGLADESH TIMES in English 4 Sep 82 p 1

[Text] Rear Admiral M.A. Khan, Minister for Communications, held a meeting with the officials of Telephone and Telegraph Board and Dacca Telecommunication Region with a view to improving the services of Dacca region and remove the grievances of general subscribers, reports BSS.

He also visited the various exchanges and held detailed discussions with all levels of officials. In course of his visit some of the basic decisions were taken which are as follows:

(A) In order to remove the high rate of telephone failure of old Dacca due to fault in the underground cables which are also very old and damaged cables all the cables of Chalkbazar, Moulvibazarn Naminda, Postegola and other areas will be made overhead with new cables so that the fault do not occur and maintenance is also easier in the narrow metalled roads.

(B) In respect of Narayanganj it was decided for prompt and reliable service Narayanganj would be included in Greater Dacca Microwave Scheme with 1,800 channels as opposed to present 400 working channels.

This will also free the Department from constant requirement of cable maintenance in the 10-mile distance through the meandering roads of Dacca and Narayanganj. In the interim period the immediate repair were ordered for the 400 lines which were damaged recently. The work to be completed within a record time of over month.

(C) In respect of Sher-e-Banglanagar Exchange the Minister ordered that junction cables of manik Mia Avenue which were damaged when the central island of this road was removed to be replaced as it as giving rise to increasing complaints. It is hoped that Sher-e-Bangla Nagar exchange connection will give better connection will give better service after replacement of faulty cables.

(D) The Minister also ordered immediate manufacture and procurement of critical components of telephone exchange be expedited.

He was told that improvement has taken place in the maintenance efficiency of Dacca region as in the month of August 1,439 complaints were received and 875

faults removed as approved to 1,507 complaints in July out of which 802 were removed. He directed that this fault should be further reduced. He was told that large number of faults were experienced in Dacca due to heavy rainfall in June/July. He expressed his dissatisfaction with the present filling system of telephone and attendance to telephone complaint of overfilling.

It has now been decided that all complaints will be investigated by a team within seven days of the receipt and necessary acknowledgement issued. A reorganized team will be attached for this purpose under GM Dacca Telephone Region.

He cautioned everyone that Martial Law Government will take stern action against corruption and other misdeeds in the Telephone Department. He ordered that the telephone operators of international and local trunk exchange should be replaced by lady operators for which provisions for rest and tiffin for them be made. He directed that vacancies of operators should be filled up immediately by lady operators. It was decided that a telephone fortnight will be observed from September 10, when the Telephone Department will do their utmost to attend to all public complaints and to remove all faults with exemplary efficiency.

During the fortnight Telephone Department will also explain for the public the role they play in the vital sectors of communication.

He also appealed to the general public not to corrupt the linemen and other by extra payment as a result of which the other subscribers who do not pay suffer and receive neglected service.

It is also intended to have a mobile maintenance team headed by a supervisor along with a three wheeler. This will enable higher level of maintenance and quick attention to faults.

A complete renovation of all cables of Dacca is to be taken in hand immediately. It is also intended for a large city like Dacca that computers should be introduced.

He also directed to bring out a working directory before publishing the latest updated by November, this year.

He also appreciated the hard work of the T and T personnel in keeping the maintenance services of T and T both national and international in spite of many odd and handicaps.

CSO: 5500/7234

RANGAMATI TELEVISION STATION OUT OF OPERATION

Dacca THE BANGLADESH TIMES in English 9 Sep 82 p 2

[Text] Chittagong, Sept 8--Newly built Rangamati television relay station has gone out of operation recently due to some major technical faults. A large number of viewers of the area have been deprived of viewing TV programmes. The 100 watt TV relay station installed on Sapochari Hill 1700 feet above the ground by the end of May this year, began trial operation. It was supposed to be inaugurated shortly after that, but recently an important machinery part has gone out of order. It is to be imported from France under whose aid the station was installed. TV authorities are making arrangement to import the spare parts.

The unattended remote control operative relay station is controlled by Chittagong TV substation. According to the observers, site of the station was not a correct choice. High hill rather than plain land was chosen for better reception of TV programmes by the hilly people. Later it was found that time-to-time check up of the station situated in such a high and inaccessible place was a difficult task. The observers feel that the station could be set up in a comparatively low height place by adopting alternative technical method which planners never thought of. The one kilowatt Cox's Bazar relay station was completed and began operation simultaneously in May this year. According to people of Cox's Bazar area a large number of viewers cannot see programmes because of regular and frequent power failure.

CSO: 5500/7236

BANGLADESH

BRIEFS

MYMENSINGH TELEPHONE EXCHANGE--Mymensingh Aug 26--The DCMLA and Minister for Communication Rear Admiral M.A. Khan on Thursday visited the Mymensingh Railway Station and the local Telephone and Telegraph Exchange reports BSS. During the visit to the T and T Exchange the DCMLA found that a new exchange of 1,000-line capacity was awaiting completion for want of some switches. He asked the officials to expedite the procurement of the switches and complete the same immediately. He stressed that with the completion of the new exchange the load on the old one would be reduced substantially, out of 100 lines of the old exchange connections were already given to 980. The DCMLA also visited the railway and T and T Colonies and found them in bad shape. He asked the authorities to improve the surroundings and make them more hygienic. Admiral Khan on invitation visited the local Bar and exchanged views with members of the Bar Council. He explained the aims and objectives of the Government and called for united efforts of all sections of people including the intellectuals in building a corruption and exploitation free Bangladesh. [Text] [Dacca THE BANGLADESH OBSERVER in English 27 Aug 82 p 1]

SYEDPUR TELEPHONE EXCHANGE--Syedpur, Sept 7--Bangladesh Telegraph and Telephone Board has commissioned on an experimental basis a 600 line automatic exchange at Syedpur (Rangpur) from August 1, replacing the old 200-line C.B. Exchange. A Press release of the T & T Board on Saturday said that new automatic exchange at Syedpur would soon be formally inaugurated. [Text] [Dacca THE BANGLADESH TIMES in English 8 Sep 82 p 2]

CSO: 5500/7233

INSAT-1A TURNED OFF, 'BEYOND REDEMPTION'

Madras THE HINDU in English 7 Sep 82 p 1

[Text] Bangalore, Sept 6. The Indian National Satellite, Insat-1A, was turned off today.

All the systems of the multi-purpose satellite were closed and it could not work any more, an Indian Space Research Organisation (ISRO) source said here.

The satellite, plagued by recurring snags since it was launched on April 10, turned critically sick on Saturday when it suffered loss of attitude.

Efforts by the mission control to command the spacecraft to recover its attitude failed, bringing to a close its life just 150 days after launch.

Mr P. P. Kale, project director, said the satellite was beyond redemption. All positions in the satellite had been "shut down" as the fuel had been completely depleted.

Contingency plan: The Communications Ministry is putting into operation a contingency plan to keep some of the telecommunication services going.

The Post and Telegraphs authorities are getting in touch with the International Satellite Organisation (Intelsat) at Washington to maintain at least a skeleton service, particularly to remote areas of the country, until the launching of the Insat-1B in July next.

The P and T Department has not started using Insat-1A fully. Out of 4,000 circuits, to be provided by the satellite, only about 300 have so far been commissioned. The Department had originally planned to make use of 1,400 circuits in all during the first year. These circuits have been mainly used to provide communications to far-flung areas where none existed before.

Eight out of the 20 Doordarshan centres will be deprived of the daily common national programme of 90 minutes duration. They are: Hyderabad, Sambalpur, Gulbarga, Bhub, Raipur, Jaipur, Muzaffarpur and Nagpur.

However, telecast of the common national programme from Delhi using the microwave channel will continue uninterrupted, according to official sources.

Centres served by the microwave link are Delhi-Mussorrie, Bombay-Pune, Madras-Bangalore, Calcutta, Lucknow, Srinagar and Jullundur, Amritsar and Jaipur have been able to telecast the programme by receiving it off the air.

Informed sources said it was not possible to beam the national programme though Insat-1A as the satellite was not picking up signals. While areas served by Insat-1A would be without the common national programme, they will continue telecasting area specific programmes.

Burden on Insat-1B: Although Insat-1B is scheduled for launch next year, the country will have to decide whether to send a third satellite earlier than planned. The original plan was to keep the Insat-1B as a stand-by for Insat-1A and put new satellites into orbit in the early Nineties.

Now, the entire burden will have to be borne by Insat-1B, which will be without a stand-by until the launching of the third satellite.--UNI

CSO: 5500/7232

ITALIAN TECHNOLOGY CHOSEN FOR NEW PHONE MODEL

Madras THE HINDU in English 7 Sep 82 p 9

[Text] New Delhi, Sept 6.--The Public Investment Board (PIB) of the Union Government has approved the choice of the technology offered by Face Standard of Italy (a subsidiary of the International Telephones and Telegraphs of U.S.) for the manufacture of a new model telephone by the Indian Telephone Industries (ITI) Ltd.

The project, estimated to cost Rs 15 crores, will be located partly at Gonda, Uttar Pradesh, where a new factory will be set up for the manufacture of five lakh telephone instruments a year, while the existing ITI factory at Naini (near Allahabad) will take up the production of another five lakh instruments. The Gonda factory will be expanded later to produce one million telephones.

A decision on the choice of offers from Face Standard of Italy and Siemens of West Germany has been awaited for nearly two years since a technical committee had submitted a report recommending the Italian offer.

The project also envisages the production of five lakhs each of critical parts like transmitters, receivers and dials as spares. It is also proposed to assemble one lakh additional telephone instruments at the Srinagar unit of the ITI using the new technology when it is stabilised. The Bangalore unit will continue its production of the ITI's version of "677" telephone instruments before switching over to the new model.

During 1981-82, the ITI achieved a production worth Rs 157 crores, representing about 97 per cent of the target fixed for the company. This was despite a lock-out in its major production unit in Bangalore. This production was practically that of 10 months. The 1980-81 production figure was Rs 86.27 crores.

CSO: 5500/7232

WORLD BANK-AIDED TELEPRINTER PROJECT IN TAMIL NADU

Madras THE HINDU in English 28 Aug 82 p 7

[Text]

MADRAS, Aug 27

The Rs. 5-crore World Bank aided electronic teleprinter project of the Hindustan Teleprinters will be set up at Hosur in Tamil Nadu and the project report has been submitted to the Centre for approval. Dr B. C. Seetharam, Chairman and Managing Director, told newsmen here on Wednesday.

The World Bank had agreed to give a loan of \$6.5 millions towards the capital cost of the project. Offers received from abroad had been shortlisted to three collaborators—Olivetti from Italy, Philips from Holland and Sagan from France.

Negotiations with prospective collaborators were under way for the manufacture of floppy disc drives. Four firms—two from the U.S. and one each from Hungary and Japan—were bidding for supplies. The company expected to add this item to its line of production shortly.

The company would roll out the first Hindi

and Roman electric typewriters through assembling of components imported from the Italian collaborators. By 1984-85, the company would indigenise a major portion of the components and would have stabilised its licensed capacity of 15,000 electric typewriters annually. The estimated cost of the project was Rs. 342 lakhs.

The company had taken up the development and production of data modems required for the P and T networks. As against the licensed capacity of 8,500 teleprinters, the company had produced 9,200 last year. The increase was due to three factors, introduction of incentive schemes for employees, career plan introduced last year, and adoption of value engineering and capacity utilisation through modern methods.

Dr Seetharam said HT manufactured two prototype Tamil teleprinters during the World Tamil Conference. But no orders had been received for this and its production was discontinued.

CSO: 5500/7228

BRIEFS

COIMBATORE-BOMBAY TELEX--Coimbatore, Aug 28 (PTI)--Union Communications Minister C. M. Stephen said today that "an explosive expansion scheme in the field of the country's telecommunications is round the corner." Commissioning the point to point telex exchange scheme between Coimbatore and Bombay, he said a telephone instrument manufacturing factory with a capacity to produce 10 lakh instruments per year would be established in the country shortly. He said a telex equipment manufacturing unit with 30,000 line capacity would be set up in Palghat soon. An agreement for importing equipments for setting up an electronic exchange equipment manufacturing unit would be signed in a couple of weeks, he added. Presiding over the function District Manager, Telephones, T Ramamurti said the point to point telex link between Coimbatore and Bombay would help the city subscribers have direct and quick contact with Bombay. [Text] [New Delhi PATRIOT in English 29 Aug 82 p 5]

AGARTALA TELEVISION CENTER--Agartala, Aug 31 (PTI)--Agartala, the capital of Tripura, will have a permanent television centre soon. Two top experts of the Delhi and Calcutta Doordarshan Centres visited Tripura on 28 August to select a suitable location for the purpose, according to an official release here today. A temporary relay station would start functioning here in November to enable viewers within a ten km circle in the town to see the Asiad on television, the release added. [Text] [New Delhi PATRIOT in English 1 Sep 82 p 5]

COLOR TELEVISION PARTS--New Delhi, Sept 1--The Union Government has relaxed the eligibility criteria for import of components for colour television sets to be assembled before Asiad 1982. The manufacturing units of black and white TV sets who produced even less than 5,000 sets during 1981-82 will now be entitled to the import assistance announced by the Government on June 16. According to the announcement, the actual user import assistance to the extent of Rs 1,250 a colour set was to be given to all approved and licensed TV set manufacturers who had produced at least 5,000 sets in 1981-82. The quantum of entitlement will be to the extent of 25 per cent of the number of black and white TV sets produced and cleared by the excise authorities in 1981-82. It has been made clear that this policy is only a one-time and ad-hoc arrangement. The State and Union Territory administrations have now been asked to indicate names and addresses of such manufacturers in their area who have adequate capabilities and facilities for quality control, after sales service and proper marketing of colour TV sets. The import assistance will be subject to conditions of market delivery before November 1, maximum price to the consumer and other conditions as applicable to manufacturers covered in the earlier notification. [Text] [Madras THE HINDU in English 2 Sep 82 p 11]

TELEVISION TO BE OPERATIONAL BY 1985

Vientiane VIENTIANE MAI in Lao 16 Jun 82 p 2

['Conversation With the Editor' Column]

[Excerpts] [Question] I think our satellite telecommunications is considered to meet international standards, and its transmission is also considered fairly up to standard. Thus, in order to be educational for new generations so they will not be under the enemies' psychological warfare, what plan do the higher echelons have to solve the problem of watching Thai television? Our Lao television can also be operated between 1900-2000 which is a newscast and pictures about the transformation and construction of our country. Would it also be a good idea to televise movies from socialist countries? Since I have seen recently that it does not televise four full hours, can our television station arrange its programming to jam Thai television transmissions?

[Answer] Lao television is now in a trial state. It is not yet permanent because our television station has not yet completed its basic steps. Based on the plan it is expected to be completed by 1985. Now it is only temporarily testing at first to train cadres. The satellite station is completed. The case for jamming the transmissions of any nation is considered to be a violation of international law, and no nations do it. As for the question you asked about keeping people from watching Thai television programs, first of all we have to make our programs good and efficient with good content. Then the people will watch ours on their own, because there is nothing much in Thai programming except advertising for selling medicines and other goods which have already been banned by the resolution and order of the cultural service. However, the more we ban them the more stubborn [people] become.

9884

CSO: 5500/5913

BRIEFS

LUANG PRABANG TELECOMMUNICATIONS--In order to respond to the needs of the people of all nationalities and races for communications between districts, rural areas and mountainous regions, since 1979 the Post and Telecommunications Service of Luang Prabang has set up networks in different localities all over the province to receive and distribute letters and packages. At the present time letters and packages are being received throughout the mountainous regions. Along with the expansion of the post, telecommunications service has also been improved and expanded. At the present time the districts far from the provincial capital all have magnetic telegraph and telephone systems which helps to facilitate contacts between provinces and different localities even more conveniently and in a timely fashion. [Text] [Vientiane HENG NGAN in Lao 1-15 Jul 82 p 7] 9884

SATELLITE TELECOMMUNICATIONS--Announcement--To all ministries, offices and organizations in Vientiane. Starting from 15 June 1982, the Ministry of Post and Telecommunications will open satellite telecommunications operations between Vientiane and the USSR, Germany, Hungary, Bulgaria, Poland, Romania, Czechoslovakia and Hanoi every day between 1200 and 1700 for telephone, and 1700-2300 for television. Please contact operator No 19. For more details please contact the State Post and Telecommunications Enterprise Tel. 3848 or the Post and Telecommunications Department Tel. 4599. For those who wish to make personal calls, please contact the Vientiane central post office. Vientiane, 15 June 1982 [Text] [Vientiane VIENTIANE MAI in Lao 19 Jun 82 p 1] 9884

CSO: 5500/5915

PROBE SOUGHT ON GOVERNMENT FUNDS CUTOFF FOR PEACESAT

Science Minister's Request

Wellington THE EVENING POST in English 3 Aug 82 p 20

[Text] The Communications Advisory Council has been asked to make a full report to the Minister of Science and Technology, Dr Ian Shearer, on the importance or otherwise of retaining New Zealand involvement in Peacesat.

Government funding for Wellington Polytechnic's participation in the Pan Pacific Education and Communication Satellite - Peacesat - has been stopped as part of the Gov-

ernment's 3 percent cost cutting exercise.

The decision was made by the Minister of Education, Mr Wellington.

Dr Shearer wrote to the CAC on Monday, asking it to investigate the importance of the Peacesat concept in terms of the communications it was providing.

The letter asks the council to look at the future place and justification for support if necessary - of Peacesat.

Dr Shearer said sometimes the decisions of other ministers impinged on his portfolio. This was one of those occasions.

"I've got to accept that's their right to make those decisions, and then got to try and find out if possible how to correct them," he said.

Threat

It is understood if New Zealand participation in Peacesat is withdrawn, this could jeopardise the international information network

structure in the Pacific and Asian region advocated by the minister.

Dr Shearer admitted he was concerned at Mr Wellington's decision to withdraw funding but until he had a full report from the CAC, there was not much more he could do.

He has also asked the council to investigate the possibility of New Zealand building its own satellite receiving station.

The council, he said, was already working on a report on satellites from the broadcasting point of view, and this request would be something extra.

If New Zealand were to build such a receiving station for information from land and sea-based satellites, it could have very considerable commercial benefits, particularly in the fishery resource area.

It would also help New Zealand's watchdog role in the Antarctic in the event of possible exploitation of resources there.

'Stupid'

The cutting of support for Peacesat was called stupid, mean-minded, and directly contrary to the longterm interests of New Zealand by Labour MPs Richard Prebble and Michael Cullen.

The two MPs said that Peacesat (Pan Pacific education and communication satellite experiment) had proved of great value to New Zealand over the last 10 years.

"For a very small sum of money great benefits are gained by our Pacific neighbours and so great goodwill is generated for New Zealand."

"Many different educational, social, agricultural, and medical groups use the Peacesat network to gain advice quickly and efficiently. The loss of this service will be a serious setback for such groups. New Zealand will be losing contact with many friends in what is our own backyard."

The two MPs said the decision also meant that New Zealand was retreating again from involvement at the frontier of new technology development.

"It would be interesting to know if Mr Wellington consulted either the Minister of Foreign Affairs or the Minister of Science and Technology about this decision."

"It is hard to believe that either would have supported it. If they did, both show a clear lack of interest in significant aspects of their own portfolios."

Education Minister's Reply

Wellington THE EVENING POST in English 6 Aug 82 p 6

[Excerpts] The decision to end the \$20,000 government grant to the Wellington Polytechnic to support the Pan-Pacific education and communication satellite experiment was the result of a review of existing policies and the clear need to reallocate resources to areas of highest priority, the Minister of Education, Mr Wellington, said yesterday.

Mr Wellington said he thought it was reasonable that the cost of maintaining such a terminal should be borne by the user, in line with government policy.

When asked if he thought the service would continue, Mr Wellington said that would depend on the users.

"If they value the service, and I'm told that they do, I would expect them to make a commensurate contribution to the ongoing cost of the service."

CSO: 5500/9037

MINISTER SAYS SATELLITE, CABLE TELEVISION 'YEARS AWAY'

Auckland THE NEW ZEALAND HERALD in English 9 Aug 82 p 4

[Text] Satellite or cable television will not come to New Zealand for some years yet, says the Minister of Broadcasting, Dr Shearer.

Dr Shearer made the comment in Parliament in reply to a question from Mr G. E. Lee (Nat-Hauraki) who had asked what was being done to implement satellite and cable television in view of the public interest in them.

Dr Shearer said: "In view of the long lead time and high level of investment, particularly for a satellite to service New Zealand, I do not believe this technology will have too great an impact for at least five years beyond the reception of television."

Drew A Response

Dr Shearer said the Communications Advisory Council had been studying the new technologies and would be reporting to him on its findings.

Dr Shearer's statement drew a response from the chairman of Cablevision New Zealand Ltd, Mr Stuart Scott, of Dunedin, who said the introduction of cable television to New Zealand was not reliant on the availability of expanded satellite services.

"Cable television in New Zealand need not be a copy of present United States and Canadian systems which are dependent on satellite-fed programming," Mr Scott said. "Many of those United States and Canadian systems were, in any case, in place

before such programme services became available."

Referring to the lead time required for a cable system, Mr Scott said development could be on a progressive basis with systems being expanded and enhanced over a number of years.

He said an advisory group to the British cabinet had recommended in March that the cabling of the United Kingdom should begin without delay.

The final point made in its report was that a late decision was the same as a negative decision.

"It would be unfortunate," Mr Scott said, "if a delayed decision here meant that the implementation of cable television ultimately was more costly to the people of New Zealand."

Considerable Research

"Nevertheless, it would be possible to offer cable television to a significant number of subscribers in a relatively short space of time. Thousands of homes could be connected to a cable television system each year.

"The Cablevision New Zealand consortium, which has already completed considerable research, is ready to

begin work on the introduction of cable television as soon as it is given the green light. Certainly, we do not believe there is any need to wait five years."

GOVERNMENT INCENTIVES FOR LOCAL COMPUTER INDUSTRY URGED

Wellington THE EVENING POST in English 18 Aug 82 p 5

[Text] **The Minister of Science and Technology, Dr Shearer, wants New Zealand's computer industry to become as lucrative for investors as the kiwifruit industry:**

But he warned in Wellington today that if professionals in the field wanted to create a better environment for the wider acceptance and promotion of computing in this country, they had to mount a massive public education programme to emphasise the industry's importance to everyone.

Only in that way could they help him — for he supported their efforts — to effect the necessary changes at the decision-making level.

The minister told the Computing Services Association early this afternoon that he believed there were excellent opportunities in developing software for the products of New Zealand's fast-growing electronics industry.

It was well placed to manufacture high value specialist items with small production runs, and its costs compared well with competitors.

It also had the capability to develop the software, and market it cheaply.

The association, in its submission on the electronics industry development plan, had stated the Government was faced with a hard choice.

Either it stimulated New Zealand's computer servicing and software industry to become a worldwide supplier able to generate high export returns, or it became heavily dependent on imported computer know-how and services.

Options

"I couldn't agree more and I, in collaboration with some of my cabinet and caucus colleagues, are currently looking at a range of options that we believe will create an environment for the growth of a healthy computer servicing and software industry," the minister said.

Reduced sales tax, government buying of software, development contracts and extra funding through the Development Finance Corporation's applied technology programme were all options open to the Government.

"I believe that since the budget there are likely to be renewed efforts by investment advisors to find out lu-

crative areas of investment for surplus funds.

Tailored

"The environment you speak of should be tailored so as to appeal to accountants and solicitors in much the same way as kiwifruit investments did in the past," the minister said.

Dr Shearer pointed out that in Australia both federal and state governments gave preference to local suppliers of computer software and services. They, as did the Governments of Britain and the United States, also gave incentives for this sector of the industry.

"Here in New Zealand we have no such policy as yet," Dr Shearer said. As he saw it, the industry had four basic needs.

First was an increase in the supply of skilled people, and the Education Department had a key role to play there.

Second was the creation of policies to encourage more private sector involvement in the training of these people.

Third was the establishment of quality control systems so the quality of software produced could be defined.

Last was the possibility of grouping selected tertiary institutions into specialist areas for research and development work on computer technology and biotechnology.

Positive

Dr Shearer said overseas experience convinced him there could be very positive effects from combining, say, Victoria University, Wellington Polytechnic, Canterbury and Otago universities into a computer specialist group.

But to create the environment where the importance of computer technology was recognised and accepted, public education was important.

The association had to widen its influence to help him, as minister, effect the necessary changes at a decision-making level. He advised the computer professionals to take a leaf from the conservationists' book.

They, he said, had become so effective and articulate in their lobbying that their views were now predominant in New Zealand's largely urban society and an anti-conservationist group had recently been established to counter their influence.

CSO: 5500/9037

MINISTER ACTIVATES NEW COMPUTERIZED LIBRARY NETWORK

Wellington THE EVENING POST in English 17 Aug 82 p 5

[Text]

The Minister of Education, Mr Wellington, pushed a button in the National Library today to activate New Zealand's new computerised library network.

The opening of the New Zealand Bibliographic

Network (NZBN) represents a significant advance in international library co-operation.

The system, financed by the National Library, will be used for National Library cataloguing for two years and its capacity will be de-

veloped for a nation wide network of libraries.

Based on the principle of shared cataloguing, the NZBN data base is the largest in New Zealand. It contains bibliographic records for books catalogued by the Library of Congress since 1968, by the National Library of Canada 1974-75 and 1980 onwards, by the British Library, 1980 onwards, and by the National Library of Australia since 1982.

Serial records are also extensive. All records will be constantly updated by the addition of new tapes.

Once the network is fully developed these bibliographic records will carry all the information relating to the books and serials held in New Zealand libraries and where they are located.

The network will make inter-library lending possible on a local or regional basis to an extent not previously imagined.

Sharing

It will allow sharing of scarce information resources and enable a borrower to find out quickly where a piece of information is stored and also estimate the time required to obtain it.

The National Library of Australia has contributed advice and training towards the National Library's development of the system for New Zealand.

Besides making the National Library a national bibliographic information centre providing full records of New Zealand books, the network will give New Zealand libraries access to records of information worldwide.

CSO: 5500/9037

NEW APPLE COMPUTER OFFER NEGATES DUMPING PENALTY

Christchurch THE PRESS in English 7 Aug 82 p 19

[Article by: Warren Marett]

[Text]

Apple Computer has turned the dumping duty levied on its special offer to schools into an attractive sales advantage that will consolidate its newly gained hold on the school market.

Apple was offering schools a computer for \$1200 — one-quarter of the normal price. After a complaint from the New Zealand manufacturer, Polycorp, the Customs Department imposed an \$820 dumping duty on the offer.

Now the Customs Department has agreed that the Apple distributor in New Zealand, CED Distributors, Ltd, of Auckland, can avoid the duty by selling the computer for \$2020, and CED Distributors will include in the price additional products that keeps the offer attrac-

tive.

In return for the extra \$820 the schools will receive two additional programming languages plus an extra memory card for the computer. The normal price for these three products is well in excess of \$820. The languages are Pascal and LOGO, both popular in schools.

No duty will then be payable by the schools or CED Distributors.

"Polycorp did the schools a favour," said the sales director of CED Distributors (Mr Brian Eardley-Wilmot). "The high schools will now have more advanced computers than most schools in the world."

When the special offer closed last month 370 schools (of 393 high schools in the

country) had placed orders, according to Mr Eardley-Wilmot. A week ago schools were asked to confirm their orders or be prepared to pay \$820 duty. Since then only three schools have cancelled their order.

Now that additional products will be provided for the extra cost, high schools would be unwise to cancel their order. The offer is exceptional value for money.

The general manager of Polycorp was not available for comment yesterday.

"I don't see how Polycorp will survive," said Mr Eardley-Wilmot, "unless the Government keeps pouring funds in."

Polycorp manufactures a school computer called Poly. The major finance for Polycorp has come from the

Development Finance Corporation.

With the success of its special offer, Apple Computer has established the Apple as the de facto standard for school computers in New Zealand. No other supplier is likely to make significant sales until the Apple computers are replaced or the Government subsidises school computers.

As if to prove its dominance beyond any doubt, CED Distributors will soon make another offer that gives high schools two Apple computers for the price of one. This will continue to make the Apple substantially cheaper than the Poly or any other competing computer.

The offer will then be extended to intermediate and primary schools.

CSO: 5500/9037

COLLECT CALLS TO U.S. TO STOP

Bangkok SIAM RAT in Thai 12 Jul 82 pp 1, 2

[Article: "The Communications Agency of Thailand Plans to End Foreign Collect Calls, Millions Lost per Year because of Crooks"]

[Text] The Communications Agency of Thailand is discussing the termination of international long distance collect phone service with the United States, because people are evading payment, causing a loss of 1.5 million baht per year in revenues.

Mr Chao Thongma, Thailand (CAT), director of the Communications Agency of Thailand, revealed that the opening of that service has been a great convenience to people, especially people calling from abroad to people in Thailand without having to go through the CAT's telephone exchange, and has enabled them to use trickery to avoid paying for the service. This amounts to millions of baht each year. For example, last year 1.47 million baht could not be collected.

Mr Chao gave as examples of such "trickery" arranging to call public phones rather than phones in homes, or calling central phones in government agencies and then being connected to people in other locations, where the operator at the agency didn't record the date and time and name of the person accepting the call. This caused a great stir when Communications sent employees to collect money and were unable to find out who had accepted the call.

The director of the CAT said that the termination of this service also stems from a plan that the CAT has to set up automatic telephone exchanges in the next year or so to handle international long distance phone service, so the present system will no longer be in use.

The director of the CAT also said that at present the CAT has been in contact with the International Telephone and Telegraph Company of the U.S., which is the other party in the agreement as the U.S.'s provider of the service, but they haven't made their conclusions. It is anticipated that the CAT will decide on the matter this August.

9937

CSO: 5500/5916

TELEPHONE SERVICE AVAILABLE VIA SATELLITE

Bangkok BAN MUANG in Thai 28 Jul 82 pp 1, 2

[Article: "System for Telephoning Across Nations"]

[Text] This morning (the 27th) at the Communications Agency of Thailand Mr Chao Thongma, director of the Communications Agency of Thailand, made the announcement that international telephone service is now available to people all over through an automatic calling system to countries all over the world by satellite 24 hours a day.

Mr Chao explained that the service was available to all individuals who owned a telephone in Bangkok and in other provinces by dialing 100 to connect directly to employees of the CAT. Those who don't own phones in Bangkok can use the service in the international telecommunications centers near the Communications Agency of Thailand. In other provinces the service is available at telephone exchanges.

Mr Chao said to please register with the Communications Agency of Thailand to set up a connection to make the service more convenient. There is no charge at all for registration. In the Greater Bangkok region contact the sales section, commerce division during working hours to register, and in other provinces contact the telegraph office.

As for collection of payment, the director of the CAT said they will send out statements through the post office. The person receiving the bill must make payment by the time stipulated in the statement.

Mr Chao mentioned problems in the international telephone service. Those who have telephone numbers transferred from another owner or ask to set up new service with the Telephone Company of Thailand should ask the officials involved beforehand whether the number being transferred to them or the new account has back charges for international phone service with the CAT. If so, they should ask to have it cleared up before the account is transferred because the CAT will not open the international phone service to phone numbers with such problems.

Mr Chao said of collect calls with the U.S. that from this 15 August on collect calls from the U.S. will no longer be permitted because of problems of being unable to collect payment, as the U.S. uses a computer system in its collections that is unable to give the actual name of the customer, only the phone number, and this is a problem in the later collection of money from the customer.

9937

CSO: 5500/5916

INTERNATIONAL CABLE SYSTEM TO LINK MIDDLE EAST

Jiddah ARAB NEWS in English 24 Aug 82 p 2

[Article by Javid Hassan]

[Text] RIYADH, Aug. 23--Saudi Arabia, along with seven other countries, has agreed in principle to construct an inter-continental submerged cable system linking the Middle East, Europe and the Far East, Eng. Zohair Mosallam, director-general of long distance communications at the ministry of P.T.T., told ARAB NEWS. The cable, which will be one of the longest of this type to be installed, will provide international telephone, telex and data communication services to over 50 countries.

Mosallam, who has just returned from a meeting between the eight countries in Paris, said that a draft construction, operation and maintenance agreement was discussed and is nearing finalization. The agreement follows the signing of a memorandum of understanding at a meeting of a four-nation committee held in Riyadh in May this year.

At the Riyadh talks, attended by the representatives of the Kingdom, Singapore, Indonesia and France, it was decided to invite Sri Lanka, Djibouti, Egypt and Italy to join the proposed network as these countries will also have a landing point in the cable system. The decision was endorsed by the four additional countries at the Paris conference, Mosallam said.

According to him, the submerged cable project is essential to the Kingdom for three main reasons. First, there is heavy international communications from the Kingdom to the Far East and West European destinations. These include Japan, China, South Korea and the Philippines to the East and Italy, France, Switzerland Britain, West Germany and the U.S. to the West. The U.S., with some 320 circuits, tops the list of countries with whom Saudi Arabia has the heaviest telecommunications traffic, and access to North America will be possible via transit facilities over existing and planned trans-Atlantic cables.

Second, as traffic is increasing rapidly every year, there is a growing need to diversify telephone circuits between different routes to ensure that failure of one link does not cause either a complete cut-off to a group of countries or undue congestion in the overall telephone network

The third reason for the system, he said, concerns the Kingdom's strategic location in the Middle East. The economic and political stability of the Kingdom, as well as the advanced development of its telephone network, make it an attractive crossroads for international traffic between the Atlantic and Indian Ocean regions. Saudi Arabia's participation was, therefore, vital to the success of the project, Mosallam said.

CSO: 5500/4736

YEMEN ARAB REPUBLIC

BRIEFS

SATELLITE STATION--Our Yemeni people on both sides of fatherland are celebrating the 20th anniversary of the immortal 26 September revolution. On this great national occasion brother Col 'Ali 'Abdallah Salih, president of the republic, commander in chief of the armed forces and secretary general of the General People's Congress, at 0800 this morning unveiled the revolution monument in Liberation Square in San'a'. Following this celebration, the president and those accompanying him headed for the headquarters of Ministry of Communications and Transportation. He was received there by engineer Ahmad al-'Ansi, minister of communications, land, air and maritime transport; the under-secretary of the ministry; the general director of telecommunications; the engineer in charge of earth satellites and the official in charge of telephones. The president inaugurated the second satellite station. A celebration was held on this occasion and was attended by the vice president, the prime minister, ministers, the chief of staff and a number of officers of the armed forces and security. [Excerpts] [GF261540 San'a' Domestic Service in Arabic 1200 GMT 26 Sep 82]

CSO: 5501/4501

FUTURE OF NATION'S MEDIA EXAMINED

Johannesburg SUNDAY TIMES in English 5 Sep 82 p 29

[Article by Flour de Villiers: "The Other Revolution--What Happens to the Media Will Affect South Africa's Future Just as Much as Political Battles"]

[Cont.]

SOUTH Africa is in the grip of two revolutions. Neither of them bloody, both vitally important to the future shape of this society. Dr Willem de Klerk, fired this week as editor of the Transvaler, was in all probability the victim of both.

The first, and most visible, is the revolt of a section of Afrikanerdom against the conservative ethic of the tribe, a revolution which has spawned the bitter and probably permanent broedertwis between the forces of change and the forces of reaction.

Despite Perskor disclaimers, the dismissal of the man who first articulated verligtheid, and then became its prophet, will have enormous political consequences in the battle for the soul of the Afrikaner.

But if Dr de Klerk in his untimely departure was, in part, a martyr to verligtheid, he was probably, and in no small measure, a victim of the media revolution which, having strewn the world with the corpses of once great newspapers and changed the social habits of a generation, is just beginning to seed its fires in South Africa.

One small statistic illuminates the point. New York, a city of seven million people and once home to half a dozen great newspapers, is today served by three -- one flourishing, one critically ill and the third languishing at death's door.

But it is also served by 15 television channels, including cable TV which operates 24 hours a day.

South Africa's industrial heartland, the Pretoria-Witwatersrand-Vereeniging area, has a mere 3.2-million people. But it is also has 10 daily newspapers -- and one, indifferent, television service.

Neither is New York unique. Washington once boasted three daily newspapers. Today it has only one of

any significance.

And in cities across North America its example is being followed as, one by one, the second newspaper folds, driven out of business and the homes of its readers by circulation losses, soaring production and distribution costs and advertising which inevitably moves to the market leader.

Much the same is beginning to apply in Britain, where despite the resilience of Fleet Street and the fact that newspaper ownership was often more a question of politics and prerogatives than profits, great traditions like The Times today tremble on the brink of extinction.

SA is the odd man out

South Africa, therefore, is the odd man out in this media revolution which is

sweeping the Western world.

Cushioned by distance from the immediate effects of any major global convulsion, whether social or economic, and by a television service whose inept use of the world's most powerful advertising and information medium has given newspapers a welcome breathing space in which to order their affairs, it is in many ways a throwback to an earlier, easier and more reassuring age when nearly everyone with a point of view could find a newspaper to express it.

And it has been in many ways the racial, political and language diversity of South Africa -- reflected in the PWV area by four English language daily newspapers, five Afrikaans and one geared to black readers -- which has helped to sustain what is perhaps the most over-traded newspaper

market in the world

No longer. The bitter circulation battles of the past few years - ever since Nasionale Pers set out to capture the Afrikaans morning reader in the Transvaal from its Perskor rival - have had many political overtones and consequences, but the politics was in many ways a by-product of a simple economic fact: the market could not sustain two major Afrikaans morning newspapers in the Transvaal.

That market had always belonged to the Transvaal, once the National Party's voice in the province, its board packed with past, present and future politicians, its editorial chair Dr Verwoerd's vehicle to power - and a loss leader in the cumbersome Perskor stable which supported its newspapers from its printing contracts.

Enter Nasionale Pers, professional to its fingertips, already the biggest newspaper group in the Cape, and determined to be No 1 in South Africa.

Knowing that this route lay through the Transvaal heartland it remained deaf to pleas not to split the loyalties of the Afrikaans reader and Perskor's circulation figures.

The result was a utter circulation battle and eventual scandal as Perskor pitted its wits against Naspers' professionalism - and lost.

Today, Beuid outstalls both the Transvaal and its evening stablemate Die Vaderland combined. And the writing is on the wall.

No reason for smugness

In the over-charged atmosphere of a family feud which pits Broeder against Broeder, with the Perskor board burdened by verkrampptes, and the Conservative Party desperate for a voice to call its own, Dr de Klerk's dismissal and the possible move of some Perskor papers to, at least, the right of the Nationalist spectrum is obviously a political event of semi-magnitude.

But it was probably

caused as much by Mr Marius Jooste's desperate desire to boost his papers' sagging fortunes by serving a different market, as it was by his personal dislike of Dr de Klerk's verligtheid.

And it could, given the sectional peculiarities of South Africa, succeed for a while. But not for long. The well-known tribulations of the Rand Daily Mail show that the problems are not unique to the Afrikaans market.

The trials of the RDM are a product as much of its virtue as of its vices. It opened up its pages to black news and opinions in a country which has a dangerous propensity for not wanting to hear or see how the other half lives and thinks.

Indeed, the average white South African soon showed just how little he wanted to know about his fellow countrymen, and white circulation figures fell as black readership rose.

But as black readers are not likely to rush out and buy washing machines or hi-fi sets, advertising followed circulation, and a once-proud newspaper found itself with both a profile problem and a profit squeeze.

But even as the RDM and the Perskor papers struggle, there is no reason for smugness among market leaders, such as the Sunday Times and The Star, or monopolies like the SABC in the face of a media revolution whose drums are now but faintly heard in this neglected corner of the world, but which will, within the next 15 years, leave the communications and information industry changed and changed utterly.

TV screen is quicker

So great and so swift will be the transformation wrought by a combination of electronic wizardry and simple demography that it could best be compared with a man travelling in a horse and buggy one minute and accompanying Armstrong to

the moon the next.

Again the pattern has already emerged in the United States where, as major newspapers fold, a host of suburban newspapers appear like spring daisies to take their place.

Where, when great magazines like Life and Look go to the wall, their places is taken not by rivals, but by such specialist periodicals as Mother Earth News, Good Digest and Psychology Today, each of which has double the circulation of those voices of a more generalist age, Esquire, Harpers Bazaar or the New Yorker.

What does this tell us about life as it is lived and read in America today?

Firstly, that blanket television coverage of every major news event anywhere in the world means that the television screen is today's front page.

It doesn't necessarily cover the news better, but it does it quicker and it brings it right into your living room.

Readers now look to their suburban newspapers and magazines to provide them with news about their interests and their neighbourhoods - elements which cannot be covered by a national media.

And they look to their major newspapers to firstly interpret and analyse the great events of the day, and then, to play to their own specialised concerns, from sport to home decorating, books, theatre and what the shares are doing on the stock market.

The result is easy to see in all the major American newspapers, a growing stress on views rather than news, and specialised sections to cater to a readership for whom greater leisure has meant more time to pursue individual pastimes and hobbies.

But the change is only in its infancy. Nor will the giants of the television industry, the national networks, be immune from its effect.

Cable TV, which offers subscribers everything from 24-hour news bulletins to day and night-long porn shows

and instant share prices, is only the beginning of a revolution which is already turning the mass culture of the 20th century into a de-massified collection of individuals.

Hedging their bets

They will use their television screens and viewdata or video text to select the information and the entertainment they want, rather than submit to what is pre-selected for them by the mass media.

How will this affect life in South Africa, where the same patterns — the suburban life style, the specialist interests — are emerging and the computer, if not yet king, is a rather cocky crown prince?

Nasionale Pers and the Argus Group have already scrambled to hedge their bets against the small is beautiful philosophy by buying up most of the suburban papers around, and the Post Office is introducing the homegrown version of viewdata, Prestel.

Viewers are voting with their fingers against the SABC and making South Africa one of the largest video markets in the world.

And the SABC — as well as the over-traded newspaper market — will soon have to cope with another threat in the new BoputhaTswana television service which will bite even further into the advertising cake.

All of which means that the Government's threat to turn SABC into even more of a dreary his master's voice

than it is today might help it to weather the political storm, but makes no economic sense at all.

Redeeming feature

And where does this leave that key element of the mass 20th century culture, your daily and weekly newspaper?

The short answer is that there will always be a newspaper which can provide the reader with the depth of analysis and interpretation which television or a computer cannot, which is a great deal more permanent than the ephemeral images on a TV screen and which has the great redeeming virtue that one can always turn back the page.

But, as in all evolutionary contests, only the fittest will survive — those which show themselves willing to change and adapt to the radical demands of the brave, if uncertain new world.

This verdict, harsh as it seems, will bring no pleasure to those who understand that Press freedom in a society depends as much on the number and diversity of its newspapers as on the tolerance of its Government.

Indeed, how South Africa copes with and survives the media revolution of the next 15 years will determine the shape of this society just as much, if not more than the bitter political battles which today dominate its headlines.

COMPUTER ASSEMBLY PLANT ESTABLISHED IN BUSHVELD

Johannesburg SUNDAY TIMES in English 12 Sep 82 p 9

[Article by Ken Slade]

[Text]

FARM labourers in the lowveld are making computers to rival the electronic marvels of Japan and the United States.

They work amid the roar of lions a stone's-throw away in the Kruger National Park.

The micro-computer assembly plant was recently opened by Magnum Technology on a farm a few metres from the park's popular Malelane Gate.

It is now in full production, using farm labourers who had no previous experience in microchip technology.

Risk

Managing Director Philip Dias admitted that he took a big risk in setting up a computer assembly plant in the bush.

"But we went into production five months ago and everything is going extremely well so far."

He said he was worried at first that a shortage of skilled labour would be a problem.

"But I discovered that many farm labourers in this area are matriculants. They could find no other employment so they went to work in the fields."

"I employed 14 of them — all matriculants — and after an intensive training session, they are now producing better computers than can be bought overseas."

"This is the first contact these people have ever had in the world of electronics."

"Some of them had never even seen a computer before applying for work here."

"As far as I can see the only drawback about having our assembly plant in the bush is that we are so far away from our suppliers."

"But the lower overall cost, the plentiful supply of labour and land, and the non-city environment more than make up for that one drawback."

Most of the parts for the computers are bought in South Africa. Only a few selected pieces are imported.

Mr Dias said many electronic and computer wizards had shaken their heads with disbelief when he had announced that he was building the factory next to the Kruger National Park.

"But the quality of our product has proved them wrong," he said.

Mr Dias admitted that he still found the roar of lions and other animal noises disturbing.

"But I have to laugh out loud when I think of the many local and overseas tourists in the park who believe they are in darkest Africa."

"I don't suppose many of them would believe that we are assembling computers just a few metres away from them."

BRIEFS

LABOR MANAGEMENT SYSTEM--SACO Systems, which started out six years ago with an initial capital of R500 000, is expecting to turn over R10-million this year--all because of its own, South African-developed, computerised labour management system. It was specifically developed for the country's massive labour-intensive industries, and so far the mines have been Saco's best customers. These systems already operate on 25 sites--mainly mines such as Gold Fields, Doornfontein and Kloof. Saco expects the local market for computerised labour management systems to double annually for the next three years, reaching a turnover of at least R80-million by 1985. Inquiries are pouring in from the US and Australia, says marketing manager Rob Davis. [Text] [Johannesburg SUNDAY TIMES-BUSINESS TIMES in English 5 Sep 82 p 28]

TELKOR TURNOVER--TELKOR, the signalling and electronic engineering company, expects to increase group turnover to R60-million in 1982-1983. Latest development in the company's progress as a force in the electronics industry is its acquisition of the majority shareholding in Telsaf (Telettra South Africa), which specialises in microwave and multiplex equipment. The minority holding is retained by the international division of Telettra, Italy, a group of the giant Fiat group and Italy's largest privately owned supplier of tele-communications and transmission equipment (current turnover R200-million). The South African company has the rights under an exclusive agreement for the manufacture and distribution of the entire Telettra product range. Telsaf, established in South Africa in 1973, is particularly strong in the field of digital transmission, with Escome and SA Transport Services as major customers. The company installed the first digital microwave network in South Africa for SATS. Telsaf will continue to operate independently and autonomously from its existing premises at Wynberg, Sandton, and will now become a South African-owned company with the considerable manufacturing, technical and systems capabilities of Telkor at its disposal. Managing director Silveria Boccetti says the company does not expect an immediate increase in turnover and profits as a result of the merger, since it has come at a difficult time during an economic downturn. However, it certainly looks forward to positive benefits emerging in 1984. [Text] [Johannesburg SUNDAY TIMES-BUSINESS TIMES in English 5 Sep 82 p 28]

WORD PROCESSING CENTER--WORD processing is definitely a woman's world, says Rob Matthews, managing director of Computer Skills, a five-month-old company run by Brenda Butler. South Africa's largest independent word-processing training centre, Word Processing Skills, now trains almost 50 word-processing

operators a month--"and they're all company-sponsored", says Mr Matthews. In the past four months Mr Matthews's company has trained 180 typists and secretaries, which he feels must reflect healthy sales in the word-processor market. Besides the Wang-basis operator's course, new training schemes are about to be launched such as "The Word Processing Supervisor", "Advanced Word Processing Supervision" and "Author Orientation", designed for those who must understand the word-processing technology. [Text] [Johannesburg SUNDAY TIMES-BUSINESS TIMES in English 12 Sep 82 p 6]

CSO: 5500/5920

BRIEFS

COMMUNICATIONS SATELLITE SOUGHT--HARARE--Zimbabwe hoped to be independent of South African telecommunication links by the end of next year, the Minister of Information, Posts and Telecommunications, Dr Nathan Shamuyarira said yesterday. Speaking before he left for the International Telecommunications Union conference in Nairobi he said: "My Ministry is working very hard to establish a communications network which is less dependent on South Africa." Dr Shamuyarira said the six-week conference would discuss ways of lessening Africa's dependence on European and American communications networks. "In keeping with Unesco's declaration of decolonising the information and communications media, the conference will discuss ways of reducing Africa's dependence on imperialism in areas of information," he said. "We want to establish our own satellite systems and earth stations so that our news agencies, newspapers, telephones, and telex can be independent." About 157 members would be represented at the biennial conference which would also elect a new Secretary-General. [Text] [Johannesburg THE CITIZEN in English 29 Sep 82 p 15]

RURAL RADIO--RADIO 4 will start transmitting in FM on October 4, the head of the station, the Rev. Stanley Nyahwa, said in Harare yesterday. He told the National Affairs Association: "Radio 4 will concentrate on the education of the masses in the rural areas. It was born from the recognition that there was something lacking in the menu of the other three stations to cater for rural education." [Text] [Harare THE HERALD in English 4 Sep 82 p 1]

CSO: 5500/5919

TELEDATA TESTS CONTINUE: REGULAR SERVICE TO START IN 1984

Copenhagen BERLINGSKE TIDENDE in Danish 16 Jun 82 Sect 11 p 1

[Article by Jakob Groes: "Television Manages Everything"]

[Text] One hundred Danish families are now participating in a test about a future in front of the television screen, Teledata, which will be a reality in 1984.

Selected Danish families since May had a taste of the beautiful TV world of the future.

The society, where we all can shop, go to the bank, read today's news, perform our work and all other things at home in our own living room. In front of the television screen. Or more correctly: at the terminal.

The family Norby in Virum is one of the selected families. Hans, engineer, Grete, social counselor, as well the sons Jakob, 14, and Mikkel, 11.

For half a year they will be borrowing from the telephone company a specially built B&O television set, which transmits and receives through the telephone network. In return their consumer habits will be entered into the large market investigation which will be used as a basis for the introduction of "Teledata." It comes in 1984.

"Then how has it been going--has the family locked itself up in front of the screen?"

"Absolutely not," said Grete Norby.

"I believe it will never be any daily routine to use television to that extent here in our house. I can say that now when the interest in the news is past. Especially because it is so extremely easy to take the telephone and ask. Rather than to sit and search for information through a computer."

However, together with her husband she recognizes that the household may possibly be atypical. Both of them are through their work used to using the telephone as a tool. Otherwise they watch TV as most people. The TV Journal almost every day. And otherwise according to the programs.

The Teledata test, as it appears today, can for instance, manage the following:

Tell about this week's offer at Irma.

Reproduce the catalog for Daell's Department Store and take orders.

Relate briefly about the action in new books at the library. And take orders.

Give answers to questions about insurance and banking. For instance, currency rates and policy premiums.

Transmit the most important news from today's newspapers.

Provide information on the timetables of the Danish State Railroads and express trains.

"But when it comes to news, I cannot reconcile myself with the screen," says Hans Norby. "It is not easy to read a text on television. And the morning newspaper is much more comfortable."

Even though the family in their own words has met the test "in a positive spirit" deep down inside they are concerned about the development of technology. Grete:

"It is alarming perspective that each one of us can lock ourselves up with all the needs of the day. Literally, because Teledata operates on the telephone network, so that our telephone is 'dead' as long as we use it."

On one individual point, the test is completely realistic. It is not free to call up. It costs 25 ore per minute to obtain Teledata. A good twice as much as a local call. The meter in the Norby family shows 34 kroner since May 1. According to the family, this corresponds to calling up every third day.

"It is an uncomfortable idea that what we obtain from Teledata can be recorded by the authorities or others. It is namely just as easy to 'listen to' TV signals as to listen to telephone conversations. And just as easy to record," says Grete Norby. The son also proved that when he recorded his mother's order for a book on his own small tape recorder. And then he was able to play the tape and get the system to repeat the order.

About this side of the case, managing clerk in KTAS [Kjobenhavns Telefon Aktieselskab, Copenhagen Telephone Corporation], Ole Larsen, says:

"We cannot see at some center what the individual consumers are doing. But Hans Norby is, for instance, included in the statistics as engineer and therefore counts in our 'engineer group'. With regards to any additional listening that may take place, the situation is exactly the same as for common telephone conversations."

He also informs us that the test will be continued until the spring of 1984. With 100 families and 75 economic activities [one-half line cut off from foreign text] every half year. After that the idea is to establish a permanent arrangement.

"Teledata has better chances in Denmark than in other countries, which have tried it. Our system is namely better," Ole Larsen informs us. "Here the customers can mainly find their information both by keying the words on a small typewriter or by keying the code. Abroad they can only use code."

England was first out with Teledata before everybody. However, the result has not been very good because the ambitions were greater than the realities. In Finland, Sweden and Norway systems are today running satisfactorily on a commercial basis, i.e., paid by advertising. And Germany starts next year.

Here at home it will cost 2-3,000 kroner to connect the system to one's own television.

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CSO: 5500/2294

BUNDESPOST'S PLANS, INVESTMENTS FOR TELECOMMUNICATION

Frankfurt/Main FRANKFURTER ALLGEMEINE in German 11 Sep 82 p 11

[Article: "Data Bank in Living Room after 1983"]

[Text] Bonn, September 10. Beginning in September 1983, the German Federal Post Office (DBP) will introduce view data nationwide. By the end of 1984 enough data centrals will have been installed so that, in theory at least, half of all telephone customers can have access to this versatile and useful new medium. From 1988 on, every telephone customer in the FRG will have access to CRT text. With this announcement Federal Postal Minister Matthoefer outlined his concept of the future development of the German postal and telecommunications system on Friday in a special meeting of the Postal Administration Council. View data will offer data processing to everybody," said the minister, especially to small and medium-sized companies. View data will very soon offer the potential for "off-premises work," or work at home. By 1986 the DBP expects a million customers for view data.

Matthoefer left no doubt about the fact that the DBP will aggressively push the development of telecommunications to build up the required infrastructure for the economy as fast as possible. This means that the investments of the DBP, which this year will reach the record amount of DM 13 billion (a quarter of all investment in industry and trade), will continue to grow over the next few years. With the planned conversion of the telephone network from analog to digital technology and the introduction of glass fiber cable in the mid 1980s, the separate networks for the various telecommunications services will coalesce into a common network. Speech, text, pictures and data, according to Matthoefer, could then be transmitted over a common network. Correspondingly, the DBP and industry would produce end equipment which would no longer serve a single type of communication but rather "combined communication."

To this end, the DBP is working for instance on introducing the picture telephone. Matthoefer first wants to offer "TV telephone" for commercial traffic so that companies can hold video conferences. Matthoefer is even thinking about setting up public video conference studios. Only at some later time after certain psychological barriers have been overcome can TV telephone be handed over for personal use. The minister further announced that the DBP is presently conducting system tests on BIGFON (broad band, integrated, glass fiber, local telecommunication network). In conjunction with this, a

glass fiber line will be strung between Hamburg and Hannover for long distance traffic. In addition, the DBP is planning a new auto telephone network which will expand the limited capacity of the present network.

Also, the DBP plans Matthoefer expansions for the contested bank services in the private lending industry. Thus, facilities with greater earning capabilities will be offered "to a limited extent" to the savings and loan system. The experiment offers savings in premiums and in increased interest. With the most modern technology (View data, microprocessor bank cards, distributed data processing and personal identification), the DBP will play the "outrider" role in the cashless society. Moreover, the covering capability will be expanded in the clearing system; and as early as next year Matthoefer plans to install cash dispensing automats.

This expansionary effort is viewed with apprehension by the German banking industry's Central Credit Committee. In a letter to Matthoefer, the commercial and savings banks advanced the opinion that the expanded offerings of the DBP overstep the framework for conducting certain banking functions laid down by the Constitution and the laws.

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CSO: 5500/2346

TELECOMMUNICATIONS AGENCY REPORTS PROGRESS TO STARTING

More Rapid Conversion To Phone Automation

Oslo AFTENPOSTEN in Norwegian 10 Jul 82 p 15

Article by Bibi Vance: "No Telephone Waiting Line in 1984"

Text By 1989 there will be no more telephone waiting list, promised Communications Minister Inger Koppernaes in a cabinet meeting yesterday when she presented the parliamentary report on the tasks of the Telecommunications Administration in the 1980s. "And in 7 years it will only take 28 hours to get a telephone installed after it has been ordered," says Koppernaes.

The government wants free competition between the Telecommunications Administration and private installers, and the Communications Department has already issued an international invitation for bids. The government also believes that the Telecommunication Administration should have an opportunity to finance its new investments with loans in private banks.

"The fact that the telephone waiting list has become so long is due to many factors, for one thing, the Telecommunication Administration's own organizational operators and tie-in with the rate system, investments in equipment which require much maintenance and the new procurement policy," says Inger Koppernaes.

She wants to give private installers access to new constructions, and the Communications Department has already issued an international invitation for bids.

"We want a faster transition to digital technology than what the Telecommunications Administration itself has planned. Instead of today's 8 to 10 different central systems, the government has recommended a system which will be easier to maintain and which therefore should increase the productivity," says the cabinet minister.

"In the invitation for bids we have taken into consideration the industry policy and as a basis for employment we will use the same conditions as if the production took place here in this country," says Inger Koppernaes.

The government also proposes that work be started on a report on the status of the Telecommunications Administration as an administrative operation.

Paper Applauds Telecommunications Advances

[Editorial: "A New Telecommunications Policy"]

Oslo AFTENPOSTEN in Norwegian 12 Jul 82 p 2

[Text] The Willoch government has had a solid foundation material for its work in developing a new policy with regards to the Telecommunications Administration. Before Christmas of last year a recommendation had been presented from the telecommunications committee, appointed by the labor party government and with a chairman with a broad background in this party, namely Oslo's finance counselor Bernt H. Lund. It was this committee which with a great majority wanted international invitations for bids for 1/2 million automatic numbers, extensive use of private installers and which announced a strategy for introducing new technology.

We note with satisfaction that the Telecommunications Department, in the parliamentary report which was presented in a cabinet meeting last Friday, follows up on all main points in the proposal by the telecommunications committee. The thing which for a long period of time has characterized the Telecommunications Administration is the hopeless waiting lists to get a telephone, the high rates and in addition a service level and an ability to obtain a connection on the network which varies considerably.

This naturally has many reasons, of which unsatisfactory supply of capital and personnel--in brief, inadequate possibilities for investments--only constitutes part of the picture. Now it requires inventiveness. There is a strong need to think in new and less monopoly-characterized tracks, and to an equally great extent it will require political will to realize the demonopolizing thoughts. With the parliamentary report which now is available the government shows that both characteristics are present.

It is quite clear that the modernization which now is being prepared will mean a smaller number of employees in those companies which deliver equipment. However, this is due to the transition to a new technology--and it is coming regardless of the proposal to expand the use of international bids. The conditions which the government is outlining means that the company which wins the competition for bids commits itself to place a considerable part of the production itself in Norway. The natural thing to do must presumably be to possibly emphasize companies which in advance have a certain connection with the Norwegian industrial environment.

In addition to private installation companies and the possibility for obtaining loans from private banks, increased productivity is a key word in the policy which the Telecommunications Administration is now setting up. A series of more technical measures, as, for instance, going over to a central system instead of 8-10 as today is likewise being proposed.

Many of those proposals which now have been presented have received considerable resistance in various areas. To the extent a political battle about these things is brewing, a great deal of the explanation probably lies in the obvious goal conflicts which the Telecommunications Administration has been exposed to. As the Telecommunications Administration at one time mentioned, it is not right to demand that the state should be both a means for solving superior objectives within, for instance, the employment, the industry and the district policy, at the same time as one wants to have an effective service operation. If the Telecommunications Administration is to be able to solve its important tasks in modern society, it is necessary once and for all to establish that all emphasis must be placed on the last-mentioned element.

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CSO: 5500/2303

TELECOMMUNICATIONS AGENCY CLAIMS SUCCESS FOR NEW SYSTEMS

Oslo AFTENPOSTEN in Norwegian 29 Jul 82 p 13

[Article by Elisabeth Randsborg: "Norway has Most Mobile Telephones. Growing Interest in the New Telecommunications Services"]

[Text] The Telecommunications Administration is very satisfied with the reactions to its new services. With regards to the new automatic, Nordic telephone (NMT), interest has exceeded all expectations, and three-quarters of a year after the opening there are now a good 5000 subscribers. For the time being the system covers only the southeastern part of the country, but it will be completely developed over the entire country in 1985. Norway has the most mobile telephones of all the countries in the world, a total of 37,000. But in spite of new telecommunications services, continued use of telephone and telex is increasing.

Preliminary figures for the new automatic mobile telephone service show that a subscriber to this system makes four times as many calls per month--approximately 50--60 calls--as a subscriber to the manual mobile telephone system. In addition, the duration of the calls is somewhat shorter.

It costs 20,000--25,000 kroner to get the equipment for the new mobile telephone installed ready in a car. In addition comes an annual fee to the Telecommunications Administration of 800 kroner. But the charge for a call is much lower than for manual mobile telephones--2.90 kroner per minute.

"This is planned pricing policy from our side," information manager Christian Bugge Hjorth in the Telecommunications Administration tells AFTENPOSTEN.

"We encourage people to switch over to the new automatic mobile telephone. Overall it will be less expensive for the subscriber to call, and over the long range this system becomes less expensive to operate for the Telecommunications Administration," says Bugge Hjorth, who does not conceal the fact that the Civil Service is well satisfied with the startup of the telecommunications services.

"The interest has been beyond all expectations. The traffic has actually been so great in certain districts that we have had capacity problems. The traffic on the NMT system has been greater than expected. But this summer we have

worked to expand the capacity in the exchanges, and we are about to solve the problems now. In contrast to the telephone network, the NMT system has possibilities for expanding the capacity, which far exceeds any traffic we will ever have, so this is only an adjustment problem for us."

For the time being the NMT system has been developed only in the eastern part of the country. But here the interest is great, and the subscribers increase by 500 every month. The western part of the country will be tied to the NMT system in the middle of August, and the entire country will be covered in 1985. During the fall the Norwegian NMT system will be connected together with corresponding systems in Sweden, Finland and Denmark.

Norway has the most mobile telephones of all the countries in the world. Evil tongues will probably claim that it is related to the poor telephone expansion, but the chief of information insists that that is not the case.

"We have investigated this, and we have not found any relationship with the telephone expansion, except in Stavanger, where people must get mobile telephones because there are long waiting lists for regular telephones.

Last year the Telecommunications Administration opened an additional four new telecommunications services. Telephone telex--which means that one can send and receive telex without having one's own telex equipment, but instead one calls the exchange at 013--now has almost 700 subscribers and handles 100--150 reports daily. It costs 30 kroner for each report in addition to 1.50 per minute.

Telefax, or remote copying as it is popularly called, means that documents can be transmitted over the telephone network. The world's fastest messenger service is the telecommunications own advertising for the offer, which can send a document from one side of the globe to the other in 3 minutes. Telefax was introduced 1 January last year and now has 600 subscribers.

Datex is the name of the new public Nordic network for data transmission. The customers have their own computer or a terminal and use the Telecommunications Administration's transmission system.

The technical development has gone a long ways, and if the receiver has to be picked up to call the 87 number of a grand-aunt at Ski, the index finger must be controlled accurately. Otherwise, one might risk ending up in the Atlantic Ocean, or the Pacific or even the Indian Ocean. The routing code for ships in such exotic waters is namely 871, 872 and 873. And this, thanks to the INMARSAT system, which by means of satellite transmission makes it possible to call directly to and from ships almost all over the world. It costs 40 kroner per minute, so it can be expensive to misdial.

Eik is the name of the ground station which serves the Norwegian part of this telephone miracle. And the traffic through this station has shown an interesting development, according to the government information manager.

"With regards to telephones, there was an increase of 53 percent in April and 30 percent in May for calls from ships. To ships there was a corresponding

increase of 50 percent and 23 percent. For Telex services, there was an increase of 50 percent and 82 percent in those 2 months. The large traffic in May was probably due to the Falklands War--people wanted to stay informed about what happened in the area," says Bugge Hjort, who can tell us that the total maritime satellite traffic to and from Norwegian ships has tripled from April of last year to April of this year.

"And in spite of this, the Telex traffic over Rogaland Radio increases. On the other hand, the telephone traffic has shown a slight decrease. And the good old Telex can show a record increase in 1981--19 percent for inland traffic and 10 percent for Telex to other countries.

"The use of telephones has not dropped off either. Last year we made 10% more calls than the year before, and the Telecommunications Administration expects that we will do the same this year, too."

"A big response to new telecommunications services means money in the till for the Telecommunications Administration and possibly an end to the telephone waiting list?"

"I do not want to go along with any direct relationship here. But it is clear that the new services secure income for us. And when the income increases, the possibilities for new investments also increase," says information manager Christian Bugge Hjorth.

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